

K. LACOURCIERE

#12

Input Set : A:\8484-018.txt
Output Set: C:\CRF3\REFHOLD\05042000\H765244.raw

```

4 <110> APPLICANT: Seibel, Peter
5 Seibel, Andrea
6
7 <120> TITLE OF INVENTION: CHIMERICAL PEPTIDE-NUCLEIC ACID
8 FRAGMENT, PROCESS FOR PRODUCING THE SAME AND ITS USES FOR
9 APPROPRIATELY INTRODUCING NUCLEIC ACIDS INTO CELL ORGANELLES
10 AND CELLS
11
12 <130> FILE REFERENCE: 8484-0018-999
13
14 <140> CURRENT APPLICATION NUMBER: US 08/765,244
15 <141> CURRENT FILING DATE: 1997-10-30
16
17 <150> PRIOR APPLICATION NUMBER: PCT/DE95/00775
18 <151> PRIOR FILING DATE: 1995-06-11
19 <150> PRIOR APPLICATION NUMBER: DE P 44 21 079.5
20 <151> PRIOR FILING DATE: 1994-06-16
21
22 <160> NUMBER OF SEQ ID NOS: 22
23
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
25
26 <210> SEQ ID NO: 1
27
28 <211> LENGTH: 41
29 <212> TYPE: PRT
30 <213> ORGANISM: Rattus rattus
31
32 <220> FEATURE:
33 <400> SEQUENCE: 1
34
35 Met Leu Ser Asn Leu Arg Ile Leu Leu Asn Lys Ala Ala Leu Arg Lys
36 1 5 10 15
37 Ala His Thr Ser Met Val Arg Asn Phe Arg Tyr Gly Lys Pro Val Gln
38 20 25 30
39 Ser Gln Leu Lys Pro Arg Asp Leu Cys
40 35 40
41
42 <210> SEQ ID NO: 2
43
44 <211> LENGTH: 39
45 <212> TYPE: DNA
46 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: Synthetic sequence
49 <400> SEQUENCE: 2
50
51 ccccggtac cctgcgagcc ctgggctcgc aaggtaccc
52
53 <210> SEQ ID NO: 3
54
55 <211> LENGTH: 34
56 <212> TYPE: DNA
57 <213> ORGANISM: Homo sapiens
58 <400> SEQUENCE: 3
59
60 gggggcctct ctattgatga gattagtagt atgg
61
62 <210> SEQ ID NO: 4
63 <211> LENGTH: 34
64 <212> TYPE: DNA
65 <213> ORGANISM: Homo sapiens
66 <400> SEQUENCE: 4
67
68 ccatactact aatctcatca atagagaggg cccc

```

ENTERED

RECEIVED

MAY 30 2000

TECH CENTER 1600/2800

RAW SEQUENCE LISTING DATE: 05/04/2000
 PATENT APPLICATION: US/08/765,244 TIME: 12:18:32

Input Set : A:\8484-018.txt
 Output Set: C:\CRF3\REFHOLD\05042000\H765244.raw

```

70 <210> SEQ ID NO: 5
71 <211> LENGTH: 30
72 <212> TYPE: DNA
73 <213> ORGANISM: Homo sapiens
75 <400> SEQUENCE: 5
76 ccatactact aatctcatca atagagaggg 30
78 <210> SEQ ID NO: 6
79 <211> LENGTH: 103
80 <212> TYPE: DNA
81 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Chimeric sequence
86 <400> SEQUENCE: 6
87 ccatactact aatctcatca atagagaggg ccccggttac cttgcgagcc ctgggctcgc 60
88 aagggtaccg gggccctctc tattgatgag attagtagta tgg 103
90 <210> SEQ ID NO: 7
91 <211> LENGTH: 1465
92 <212> TYPE: DNA
93 <213> ORGANISM: Homo sapiens
95 <400> SEQUENCE: 7
96 ccgcggtggc tggcacgaaa ttgaccaacc ctgggggttag tatagcttag ttaaactttc 60
97 gtttattgct aaaggttaat cactgctgtt tcccggtggg gtgtggctag gctaagcgtt 120
98 ttgagctgca ttgctgcgtg cttgatgctt gtcccttttg atcgtgggtga tttagagggt 180
99 gaactcactg gaacggggat gcttgcattg gtaatcttac taagagctaa tagaaaggct 240
100 aggaccaaac ctatttgttt atgggggtgat gtgagcccg ctaaacattt tcagtgtatt 300
101 gctttgagga ggttaagctac ataaactgtg gggggtgtct ttggggtttg gttgggtcgg 360
102 ggtatggggg tagcagcggg gtgtgtgtgc tgggtaggat gggcgggggg tgtattgatg 420
103 agattagtag tatgggagtg ggaggggaaa ataattgtgt agttgggggg tgactgttaa 480
104 aagtgcatac cgccaaaaga taaaatttga aatctggtta ggctgggtgt agggcccttt 540
105 gtcccacacc caccacaaga cagggtttgt taagatggca gagcccggtg atgcataaa 600
106 acttaaaact ttacagtcag aggttcaatt cctcttctta acaacatacc catggccaac 660
107 ctctactacc tcattgtacc cattctaatc gcaatggcat tectaatgct taccgaacga 720
108 aaaattctag gctatataca actacgcaaa ggccccaacg tggtagggcc ctacgggcta 780
109 ctacaacctt tcgctgacgc cataaaactc ttcaccaaag agccccctaa acccgccaca 840
110 tctaccatca cctctcatat caccgccccg accttagctc tcaccatcgc tcttctacta 900
111 tgaaccccc tcccataacc caacccctg gtcaacctca acctaggcct cctatttatt 960
112 ctagccacct ctgacctagc cgtttactca atcctctgat cagggtgagc atcaaaacta 1020
113 aactacgccc tgatcgggcg actgcgagca gtagcccaaa caatctcata tgaagtcacc 1080
114 ctagccatca ttctactatc aacattacta ataagtggtc cctttaacct ctccaccctt 1140
115 atcacaacac aagaacacct ctgattactc ctgccatcat gacccttggc cataaatatg 1200
116 ttatctcca cactagcaga gaccaaccga acccccttcg accttgccga aggggagtc 1260
117 gaactagtct caggcttcaa catcgaatac gcgcaggcc ccttcgccct attcttcata 1320
118 gccgaataca caaacattat tataataaac accctcacca ctacaatctt cctaggaaca 1380
119 acatatgacg cactctccc tgaactctac acaacatatt ttgtcaccaa gaccctactt 1440
120 ctaacctccc tgttcttatg aattc 1465
122 <210> SEQ ID NO: 8
123 <211> LENGTH: 1465
124 <212> TYPE: DNA
125 <213> ORGANISM: Homo sapiens

```

RAW SEQUENCE LISTING DATE: 05/04/2000
 PATENT APPLICATION: US/08/765,244 TIME: 12:18:32

Input Set : A:\8484-018.txt
 Output Set: C:\CRF3\REFHOLD\05042000\H765244.raw

```

127 <400> SEQUENCE: 8
128 gaattcataa gaacagggag gttagaagta gggctcttgg gacaaaatat gttgtgtaga 60
129 gttcagggga gagtgcgtca tatgttgttc ctaggaagat tgtagtgggt aggggtgtta 120
130 ttataataat gtttgtgtat tcggtctatga agaatagggc gaaggggcct gcggcgattt 180
131 cgatgttgaa gcctgagact agttcggact ccccttcggc aaggtcgaag ggggttcggg 240
132 tggctctctgc tagtgtggag ataaatcata ttatggccaa gggctcatgat ggcaggagta 300
133 atcagagggtg ttcttgtgtt gtgataaggg tggagagggt aaaggagcca cttattagta 360
134 atgttgatag tagaatgatg gctagggtga ctccatata gattgttttg gctactgctc 420
135 gcagtgcgcc gatcagggcg tagtttgagt ttgatgctca cctgatcag aggattgagt 480
136 aaacggctag gctagagggt gctagaataa ataggagccc taggttgagg ttgaccaggg 540
137 ggttgggtat ggggaggggg gttcatagta gaagagcgat ggtgagagct aaggtcgggg 600
138 cgtgatgta gagggtgatg gtagatgtgg cgggttttag gggctctttg gtgaagagtt 660
139 ttatggcgctc agcgaagggg tgtagtagcc cgtaggggcc taccacgttg gggcctttgc 720
140 gtagtgtgat atagcctaga atttttcggt cggtaagcat taggaaatgcc attgcgatta 780
141 gaatgggtac aatgaggagt aggaggttgg ccatgggtat gttgttaaga agaggaattg 840
142 aacctctgac tgtaaagttt taagttttat gcgattaccg ggctctgcca tcttaacaaa 900
143 cctgttctct ggggtgggtg gggacaaagg gccctaacac cagcctaacc agatttcaaa 960
144 ttttatcttt tggcggtatg cacttttaac agtcaccccc caactaacac attattttoc 1020
145 cctcccactc ccatactact aatctcatca atacaacccc cgcctatcct acccagcaca 1080
146 cacacacccc tgctaacccc ataccocgaa ccaaccaaac cccaagaca cccccacag 1140
147 ttatgttagc ttacctctc aaagcaatac actgaaaatg tttagacggg ctcacatcac 1200
148 ccataaaca aataggtttg gtcctagcct ttctattagc tcttagtaag attacacatg 1260
149 caagcatccc cggtccagtg agttcacccct ctaaatcacc acgatcaaaa ggaacaagca 1320
150 tcaagcacgc agcaatgcag ctcaaaacgc tttagcctagc cacaccccca cgggaaacag 1380
151 cagtgattaa cctttagcaa taaacgaaag tttaactaag ctatactaac cccaggggtg 1440
152 gtcaatttcg tgccagccac cgcggg 1465
154 <210> SEQ ID NO: 9
155 <211> LENGTH: 86
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Synthetic sequence
162 <400> SEQUENCE: 9
163 gatatcgca agcttaaggc gcctcaggtc accatatgat catttgtaa gatggcagag 60
164 cccggtaac gcataaaatg agaccg 86
166 <210> SEQ ID NO: 10
167 <211> LENGTH: 94
168 <212> TYPE: DNA
169 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Synthetic sequence
174 <400> SEQUENCE: 10
175 gatccggtct cattttatgc gattaccggg ctctgccatc ttaacaaatg atcatatggt 60
176 gacctgaggg gccttaagct tcgcgatatc tgca 94
178 <210> SEQ ID NO: 11
179 <211> LENGTH: 1455
180 <212> TYPE: DNA
181 <213> ORGANISM: Unknown
183 <220> FEATURE:

```

RECEIVED

MAY 9 2000

TECH CENTER 1600/2900

RAW SEQUENCE LISTING DATE: 05/04/2000
 PATENT APPLICATION: US/08/765,244 TIME: 12:18:32

Input Set : A:\8484-018.txt
 Output Set: C:\CRF3\REFHOLD\05042000\H765244.raw

```

184 <223> OTHER INFORMATION: Plasmid
186 <400> SEQUENCE: 11
187 ctcgagggtc tcaggggcta atagaaagcc taggaccaa cctatttgtt tatgggggtga 60
188 tgtgagcccg tctaaacatt ttcagtgtat tgctttgagg aggtaaagcta cataaactgt 120
189 gggggggtgc tttgggggtt ggttgggtcg ggggtatggg ttagcagcgg tgtgtgtgtg 180
190 ctgggttaga tggcgggggg ttgtattgat gagattagta gtatgggagt gggaggggaa 240
191 aataatgtgt tagttggggg gtgactgtta aaagtgcata ccgccaaaag ataaaatttg 300
192 aaatctgggt aggtcgggtg taggggttctt tgtttttggg gtttggcaga gatgtgttta 360
193 agtgcctgtg ccagaagcgg gggagggggg gtttgggtga aattttttgt tatgatgtct 420
194 gtgtggaag tggtcgtgca gacattcaat tgttattatt atgtcctaca agcattaatt 480
195 aattaacaca ctttagtaag tatgttcgcc tgtaattatg aacgtagggt cgataaataa 540
196 taggatgagg caggaatcaa agacagatag tgcgacatag ggtgctccgg ctccagcgtc 600
197 tcgcaatgct atcgcgtgca taccctccag acgaaaatac caaatgcatt gagagctccc 660
198 gtgagtgggt aataggggtg tagacctgtg atccatcgtg atgtcttatt taaggggaac 720
199 gtgtgggcta tttaggcttt atgacctga agtaggaacc agatgtcggg tacagttcac 780
200 tttagctacc cccaagtgtt atgggcccgg agcgaggaga gtacgactct tgtgcgggat 840
201 attgatttca cggaggatgg tggtaaggg acccctatct gaggggggtc atccatgggg 900
202 acgagaaggg atttgaactg aatgtgctat gtacggtaaa tggctttatg taactatgtac 960
203 tgttaagggt gggtaggttt gttggtatcc tagtgggtga ggggtggcct tggagttgca 1020
204 gttgatgtgt gatagttgag ggttgattgc tgtacttgct tgaagcatg gggagggggt 1080
205 tttgatgtgg attgggtttt tatgtactac aggtgggtcaa gtatttatgg taccgtacaa 1140
206 tattcatggt ggtcggcagt aatgtacgaa atacatagcg gttgttgatg ggtgagtcga 1200
207 tacttgggtg gtacccaaat ctgcttcccc atgaagaac agagaatagt ttaaattaga 1260
208 atcttagctt tgggtgtcaa tgggtgagtt aaagactttt tctctgattt gtccttgaa 1320
209 aaaggttttc atctcgggtt tacaagactg gtgtattagc tgcagatata gcgaagctta 1380
210 aggcgcctca ggtcaccata tgatcatttg ttaagatggc agagcccgtt aatcgcataa 1440
211 aatgagaccg gatcc 1455
213 <210> SEQ ID NO: 12
214 <211> LENGTH: 1455
215 <212> TYPE: DNA
216 <213> ORGANISM: Unknown
218 <220> FEATURE:
219 <223> OTHER INFORMATION: Plasmid
221 <400> SEQUENCE: 12
222 ggateccggtc tcattttatg cgattaccgg gotctgccat cttacaaat gatcatatgg 60
223 tgacctgagg cgccttaagc ttcgcgatat ctgcagctaa tacaccagtc ttgtaaaccg 120
224 gagatgaaaa cttttttcca aggacaaatc agagaaaaag tctttaactc caccattagc 180
225 acccaaaagt aagattctaa tttaaactat tctctgttct ttcattggga agcagatttg 240
226 ggtaccacc cagatttgac tcacccatca acaaccgcta tgtatttcgt acattactgc 300
227 cagccaccat gaattattga cggtagcata aatacttgac cacctgtagt acataaaac 360
228 ccaatccaca tcaaaacccc ctcccatgc ttacaagcaa gtacagcaat caacctcaa 420
229 ctatcacaca tcaactgcaa ctccaaagcc acccctcacc cactaggata ccaacaaacc 480
230 taccacacct taacagtaca tagtacataa agccatttac cgtacatagc acattacagt 540
231 caaatccctt ctctgcccc cggatgaccc cctcagata ggggtccctt gaccaccatc 600
232 ctccgtgaaa tcaatatccc gcacaagagt gctactctcc tcgctccggg cccataaac 660
233 ttgggggtag ctaaagtga ctgtatccga catctggttc ctacttcagg gtcataaagc 720
234 ctaaatagcc cacacgttcc ccttaaataa gacatcacga tggatcacag gtcatacacc 780
235 ctattaacca ctacgggag ctctccatgc atttggtatt ttcgtctggg gggtagtcac 840
236 gcgatagcat tgcgagacgc tggagccgga gcacctatg tcgcagatc tgtctttgat 900

```

RAW SEQUENCE LISTING DATE: 05/04/2000
 PATENT APPLICATION: US/08/765,244 TIME: 12:18:32

Input Set : A:\8484-018.txt
 Output Set: C:\CRF3\REFHOLD\05042000\H765244.raw

```

237 tctgcctca tcctattatt tatgcacact acgttcaata ttacaggcga acatacttac 960
238 taaagtgtgt taattaatta atgctgttag gacataataa taacaattga atgtctgcac 1020
239 agccactttc cacacagaca tcataacaaa aaatttccac caaacccccc ctccccct 1080
240 tctggccaca gcacttaaac acatctctgc caaaccccaa aaacaaagaa ccctaacacc 1140
241 agcctaacca gatttcaaat ttatctttt ggcggtagtc acttttaaca gtcacccccc 1200
242 aactaacaca ttattttccc ctccactcc cactactact atctcatcaa tacaaccccc 1260
243 gccatccta cccagcacac acacacgcgt gctaacccca taccocgaac caaccaaacc 1320
244 ccaaagacac ccccacagt ttatgtagct tacctctca aagcaataca ctgaaaatgt 1380
245 ttagacgggc tcacatcacc ccataaacia atagggttgg tctagcctt tctattagcc 1440
246 cctgagaccc tcgag 1455
248 <210> SEQ ID NO: 13
249 <211> LENGTH: 3232
250 <212> TYPE: DNA
251 <213> ORGANISM: Unknown
253 <220> FEATURE:
254 <223> OTHER INFORMATION: Plasmid
256 <400> SEQUENCE: 13
257 ctcgagggtc tcaggggcta atagaaaggc taggacaaa cctatttgtt tatggggtga 60
258 tgtgagcccg tctaaacatt ttcagtgtat tgccttgagg aggtaaagcta cataaactgt 120
259 ggggggtgtc ttgggggttt ggttggttcg gggtagggg ttagcagcgg tgtgtgtgtg 180
260 ctgggtagga tgggcggggg ttgtattgat gagattagta gtatgggagt gggaggggaa 240
261 aataatgtgt tagttggggg gtgactgtta aaagtgcata ccgccaaaag ataaaatttg 300
262 aaatctggtt aggcctggtt tagggttctt tgtttttggg gtttggcaga gatgtgttta 360
263 agtgcgtgtg ccagaagcgg gggagggggg gtttggtgga aattttttgt tatgatgtct 420
264 gtgtggaag tggctgtgca gacattcaat tgtattatt atgtctaca agcattaatt 480
265 aattaacaca ctttagtaag tatgttcgcc tgtaatttg aacgtagggt cgataaataa 540
266 taggatgagg caggaaatcaa agacagatac tgcgacatag ggtgctccgg ctccagcgtc 600
267 tcgcaatgct atcgcgtgca tacccccag acgaaaatac caaatgcgtg gagagctccc 660
268 gtgagtgtgt aataggggtg tagacctgtg atccatctg atgtcttatt taaggggaac 720
269 gtgtgggcta tttaggcttt atgacctga agtaggaacc agatgtcgga tacagttcac 780
270 tttagctacc cccaagtgtt atgggcccgg agcgaggaga gtacactct tgtgcgggat 840
271 attgatttca cggaggtatg tggtaagggt acccctatct gaggggggtc atccatgggg 900
272 acgagaaggg atttgactgt aatgtgctat gtacggtaaa tggctttatg tactatgtac 960
273 tgttaagggt gggtaggttt gttgggtatc tagtgggtga ggggtggctt tggagttgca 1020
274 gttgatgtgt gatagtttag ggttgattgc tgtacttgc tgtaaagcatg gggagggggt 1080
275 tttgatgtgt attgggtttt tatgtactac aggttggtcaa gtatttatgg taccgtacaa 1140
276 tattcatggt ggcctggcagt aatgtacgaa atacatagcg gttgttgatg ggtgagtgaa 1200
277 tacttgggtg gtacccaaat ctgcttcccc atgaaagaac agagaatagt ttaattaga 1260
278 atcttagctt tgggtgctaa tggtaggtt aaagactttt tctctgattt gtccttgaa 1320
279 aaaggttttc atctccggtt tacaagactg gtgtattagc tgcagatate gcgaagcttg 1380
280 taacatggta agtgtactgg aaagtgcact tggacgaacc agagtgtagc ttaacacaaa 1440
281 gcacccaact taocattagg agatttcaac ttaacttgac cgtctctgagc taaacctagc 1500
282 cccaaaccca ctccacctta ctaccagaca accttagcca aaccatttac ccaaataaag 1560
283 tataggcgat agaaattgaa acctggcgca atagatatag taccgcaagg gaaagatgaa 1620
284 aaattataac caagcataat atagcaagga ctaaccccta tactctctgc ataattgaatt 1680
285 aactagaaat aactttgcaa ggagagccaa agctaagacc cccgaaacca gacgagctac 1740
286 ctaagaacag ctaaaagagc acaccctct atgtagcaaa atagtgggaa gatttatagg 1800
287 tagaggcgac aaacctacgg agcctggtga tagctggttg tccaagatag aatcttagtt 1860
288 caactttaaa tttgccaca gaacctctta aatcccttg taaatttaac tgttagtcca 1920

```

VERIFICATION SUMMARY DATE: 05/04/2000
PATENT APPLICATION: US/08/765,244 TIME: 12:18:33

Input Set : A:\8484-018.txt
Output Set: C:\CRF3\REFHOLD\05042000\H765244.raw